

What is claimed is:

1. An energetic composition, comprising:
a high energy material; and,
one or more nanotubular structures comprising the high energy material.
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2. The energetic composition of claim 1, wherein the high energy material comprises an
explosive composition selected from the group consisting of RDX, TNT, HMX and
combinations thereof.
- 10 3. The energetic composition of claim 2, wherein the high energy material comprises
HMX or RDX.
4. The energetic composition of claim 1, further comprising a melt temperature
lowering component.
- 15 5. The energetic composition of claim 1, wherein the one or more nanotubular
structures comprise a plurality of nanotubes.
6. The energetic composition of claim 1, wherein the one or more nanotubular

structures comprise a diameter of from about 300 micrometers to about 1000 micrometers.

7. The energetic composition of claim 1, further comprising inert material.
- 5 8. The energetic composition of claim 7, wherein the inert material comprises one or more inert nanotubular structures.
9. The energetic composition of claim 1, wherein the one or more nanotubular
10 structures are substantially longitudinally aligned.
10. The energetic composition of claim 1, wherein the one or more nanotubular structures are aligned along a direction of increased burn rate.
- 15 11. A burn rate modifier comprising the energetic composition of claim 1.
12. A solid propellant comprising the energetic composition of claim 1.
13. A rocket motor system comprising the energetic composition of claim 1.

14. A process for producing a burn rate modifier, comprising the steps of:
providing a chemical composition selected from the group consisting of inert
material, low energy material and high energy material;

5 forming nanotubular structures with said chemical composition; and,
incorporating said nanotubular structures into an energetic composition.

15. The process of claim 14, further comprising the step of forming the energetic material
into a solid propellant.

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16. The process of claim 14, wherein the chemical composition comprises inert material.

17. The process of claim 14, wherein the chemical composition comprises low energy
material.

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18. The process of claim 14, wherein the chemical composition comprises high energy
material.

19. A burn rate modifier product produced by the process of claim 14.

20. The burn rate modifier product of claim 19, wherein the addition of the nanotubular structures increases the Isp of the energetic composition.